Amendments to the Specification

Please replace the paragraph in the specification on page 4, lines 9-16, with the following amended paragraph:

--In a further advantageous embodiment of the method according to the present invention the solutions L1 and/or L2 are organic solvents and/or solutions with critical pH values and/or solutions with critical ion concentrations and/or salt solutions and/or solutions containing metal ions. For the performance of the method according to the present invention for preparing samples, the organic solvents methanol, ethanol, butanol and acetone have proven especially advantageous. It is the dissolved salts of picric acid, gallotannic acid, tungstic acid, molybdenum acid, ~~trichloroacedic~~ trichloroacetic acid, perchloric acid and ~~sulphosalicylic~~ sulfosalicylic acid that are particularly employed as salt solutions. A range of -10°C to 60°C has proven an advantageous temperature range T1.--

Please replace the paragraph in the specification on page 7, line 15, to page 8, line 4, with the following amended paragraph:

--In a first process step a) the biological samples are applied to a two-dimensional support 24. The biological samples are usually a cell or tissue sample or a mixture of proteins or nucleic acids or a mixture of macromolecules consisting of proteins and/or carbohydrates and/or fats and/or nucleic acids. Cells from a cell culture can, for example, be received in a buffer, the cell density being set at e.g. $3x10^8$ cells. It is, however, also possible for a cryostat tissue section to be used as a sample. The choice of the number of cells or the number of tissue sections depends on the objective, i.e. to which other method the biological samples are supplied after the completion of sample preparation. This can generally be a protein- and/or nucleic acid determination method and/or a protein-chemical separation method and/or a method for the in-situ analysis of cell structures. The cells dissolved in the buffer are

applied evenly to the support 24 with the help of a pipette. Alternatively, one or several tissue sections are received on the support 24. Depending on the size of the sample slide 26, it is thus possible to receive a plurality of supports 24. Prior to the transfer of the sample slide 26 into the device 10, the separation wall 18 is shifted outward by pulling, so that the second chamber 20 becomes accessible from the first chamber 12 arranged above it. The second chamber 20 is then filled with the first protein-precipitating or denaturing solution L1 to just below the top chamber rim. With the embodiment described here, the first solution L1 consists of an organic solvent, e.g. methanol, ethanol, butanol or acetone. However, it is also possible for the solutions L1 and L2 to not only consist of organic solvents but also of solutions with critical pH values and/or solutions with critical ion concentrations and/or salt solutions and/or metal ion-containing solutions, it being possible for the salt solutions to contain dissolved salts of picric acid, gallotannic acid, tungstic acid, molybdenum acid, ~~trichloroacedic~~ trichloroacetic acid, perchloric acid or ~~sulphosalicylic~~ sulfosalicylic acid.